

DETAILED ACTION

Response to Amendment

1. This Action is responsive to the Applicant's Amendment/Remarks filed on 12/27/2010. In the Amendment, applicant amended claims 1, 10 and 21. Cancelled claims 2, 5, 8, 11, 14, 19, 25, 27, 30, 33-34, and 37-42.
2. After a thorough search and examination of the present application, and in light of the following:
 - Prior art made of record;
 - Amendment filed 12/27/2010
 - An updated search on prior art conducted in domains (EAST, NPL-ACM, NPL-IEEE, Google, etc);Claims 1, 3, 6-7, 9-10, 12, 15-18, 20-24, 26, 28-29, 31-32, and 35-36 (renumbered 1-23) are allowed.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/ or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney Mr. Troy L. Gwartney (client's representative, Reg. No. 61,388) at the telephone number (571) 203-2700 on 01/28/2011 with regards to the claims' formality

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and suggested the applicant to incorporate the dependent claim 4 into claim 1, and other dependent claims into the other independent claims so that they were to be in the same scope with claim 1, in order to move the case forward for allowance.

4. The application has been amended as follows:

In the claims:

- Claims 2, 4-5, 8, 11, 13-14, 19, 25, 27, 30, 33-34, and 37-42 are canceled.
- Claims 1, 10, and 21 have been amended as follows:

1. (Currently Amended) A computer implemented method for generating a multi-dimensional data structure in order to access data stored at a plurality of data sources, said plurality of data sources being disparate, having disparate source data structures, and having a different number of dimensions than said multi-dimensional data structure, said method comprising:

defining at least one dimension and a dimension value associated with the at least one dimension for said multi-dimensional data structure;

defining an attribute and an attribute value associated with the attribute for said multi-dimensional data structure, wherein the attribute is assigned to a single dimension;

creating a plurality of combinations of dimension values,

wherein a combination defines a data item,

wherein the plurality of combinations comprise a first set of data items and
a second set of data items,

wherein said multi-dimensional data structure is defined by the dimensions
associated with the first set of data items, and

wherein the second set of data items comprises data items associated
with the dimensions associated with the plurality of data sources;

mapping data items in the first set of data items in said multi-dimensional data
structure to corresponding data items in the second set of data items;

determining a data gap wherein the mapping step results in a difference between
the dimension characteristics of the first set of data items and the second
set of data items;

bridging the gap by at least one of the following:

obtaining, from one of the plurality of data sources, a further data item for
mapping to one of the data items in the first set, wherein the further
data item is not originally obtainable in the second set of data items
and is generated from one or more of the plurality of data sources;

modifying the multi-dimensional data structure to be further defined by the
second set of data items; or

converting a source data structure in at least one of the plurality of data sources into a source data structure defined by at least one data item in the first set of data items;

documenting how the gap was bridged; and

creating a mapping file for historic data conversion, wherein the mapping file is configured to store relationships between data items in historical data sources for use in generating new data items from historical data sources.

2. (Canceled)
3. (Previously Presented) The method of claim 1, wherein said gap is bridged at said plurality of data sources.
4. (Canceled)
5. (Canceled)
6. (Previously Presented) The method of claim 1, wherein said creating the combinations includes linking two or more dimensions for said combination created.
7. (Previously Presented) The method of claim 6, wherein said mapping includes mapping the combination to a data structure for one of the data sources.
8. (Canceled)
9. (Previously Presented) The method of claim 1, further comprising generating a report, wherein said report is a combination report, a hierarchy report, or a mapping report.

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10. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine, said instructions for generating a new multi-dimensional chart of accounts that is used to access data stored at a plurality of source charts of accounts, wherein said plurality of source charts of accounts are disparate, have disparate source data structures, and [[has]] have a different number of dimensions than said new multi-dimensional chart of accounts, the program storage device executing the method comprising:

defining at least one dimension and a dimension value associated with the at least one dimension for said new multi-dimensional chart of accounts;

defining an attribute and an attribute value associated with the attribute for said multi-dimensional data structure, wherein the attribute is assigned to a single dimension;

creating a plurality of combinations of dimension values,

wherein a combination defines a data item,

wherein the plurality of combinations comprise a first set of data items and a second set of data items,

wherein said new multi-dimensional chart of accounts is defined by the dimensions associated with the first set of data items,

wherein the second set of data items comprises data items associated with the dimensions associated with the plurality of source charts of accounts;

mapping data items in the first set of data items in said new multidimensional chart of accounts to corresponding data items in the second set of data items;

determining a data gap wherein the mapping step results in a difference between the dimension characteristics of the first set of data items and the second set of data items;

bridging the gap by at least one of the following:

obtaining, from one of the plurality of source charts of accounts, a further data item for mapping to one of the data items in the first set, wherein the further data item is not originally obtainable in the second set of data items and is generated from one or more of the plurality of source charts of accounts;

modifying the new multi-dimensional chart of accounts to be further defined by the second set of data items; or

converting a source data structure in at least one of the plurality of source charts of accounts into a source data structure defined by at least one data item in the first set of data items; and

documenting how the gap was bridged; and

creating a mapping file for historic data conversion, wherein the mapping file is configured to store relationships between data items in historical source

charts of accounts for use in generating new data items from historical source charts of accounts.

11. (Canceled)
12. (Previously Presented) The program storage device of claim 10, wherein said gap is bridged at said plurality of source charts of accounts.
13. (Canceled)
14. (Canceled)
15. (Previously Presented) The program storage device of claim 10, wherein said dimension is at least one of a dimension for a product, an industry classification and a maturity.
16. (Original) The program storage device of claim 15, wherein said dimension value associated with said product dimension is one of corporate loans, mortgages, home credits and personal loans.
17. (Previously Presented) The program storage device of claim 10, wherein said method further comprises linking two or more dimensions for a created combination.
18. (Previously Presented) The program storage device of claim 17, wherein said method further comprises mapping a combination for a dimension value to said plurality of source charts of accounts.
19. (Cancelled) .

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20. (Previously Presented) The program storage device of claim 10, wherein the method further comprises generating a report, wherein said report is a combination report, a hierarchy report, or a mapping report.

21. (Currently Amended) A tool for generating a multi-dimensional data structure for integrating data stored at a plurality of data sources, said plurality of data sources being disparate, having disparate source data structures, and having a different number of dimensions than said multi-dimensional data structure, said tool comprising:

a relational database;

a processor;

a data structure generator, wherein said data structure generator defines at least one dimension and a dimension value associated with the at least one dimension;

an attribute module, wherein said attribute module defines an attribute and an attribute value associated with the attribute for said multi-dimensional data structure, wherein the attribute is assigned to a single dimension;

a combination module for creating and retrieving a plurality of combinations of dimension values,

wherein a combination defines a data item,

wherein the plurality of combinations comprise a first set of data items and a second set of data items,

wherein said multi-dimensional data structure is defined by the dimensions associated with the first set of data items, and

wherein the second set of data items comprise data items associated with the dimensions associated with the plurality of data sources;

a mapping module for mapping data items in the first set of data items in the multi-dimensional data structure to corresponding data items in the second set of data items;

a gap detector for detecting a data gap wherein the mapping step results in a difference between the dimension characteristics of the first set of data items and the second set of data items; and

a gap resolver for facilitating bridging of the gap by at least one of the following:

obtaining, from one of the plurality of data sources, a further data item for mapping to one of the data items in the first set, wherein the further data item is not originally obtainable in the second set of data items and is generated from one or more of the plurality of data sources;

modifying the multi-dimensional data structure to be further defined by the second set of data items; or

converting a source data structure in at least one of the plurality of data sources into a source data structure defined by at least one data item in the first set of data items; and

wherein the gap detector and resolver document how gaps are bridged;
and

a mapping file module for creating a mapping file used for historic data
conversion, wherein the mapping file module is configured to store
relationships between data items in historical data sources for use in
generating new data items from historical data sources.

22. (Original) The tool of claim 21, wherein said tool is in communication with said plurality of data sources via an electronic network.

23. (Previously Presented) The tool of claim 21, wherein said gap is bridged at said plurality of data sources.

24. (Previously Presented) The tool of claim 21, wherein said combination module creates the combination by linking two or more dimensions.

25. (Cancelled).

26. (Previously Presented) The tool of claim 21, further comprising a report generator for generating a report, wherein said report is a combination report, a hierarchy report, or a mapping report.

27. (Canceled).

28. (Previously Presented) A method according to claim 1, wherein the multi-dimensional data structure comprises a centralized database.

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29. (Previously Presented) A method according to claim 28, wherein the centralized database is located at a central office.

30. (Cancelled).

31. (Previously Presented) A program storage device according to claim 10, wherein the multidimensional chart of accounts comprises a centralized database.

32. (Previously Presented) A program storage device according to claim 31, wherein the centralized database is located at a central office.

33. (Canceled)

34. (Canceled)

35. (Previously Presented) A tool according to claim 21, wherein the multi-dimensional data structure comprises a centralized database.

36. (Previously Presented) A tool according to claim 35, wherein the centralized database is located at a central office.

37-42. (Canceled)

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:

In the Examiner's Non Final Action dated 08/25/2010, the rejection under 35 U.S.C. § 103 was made mainly based on the references over ***Shoup et al (US Patent, 6,108,657 A1) in view Nwabueze et al. (US PG PUB 2002/0144174, A1).***

In a response to the Office action mailed on 08/25/2010, Applicant argued that Shoup and Nwabueze fail to teach, disclose, or suggest each of the features specified in amended claims 1, 10, and 21. For example, Shoup and Nwabueze fail to teach or suggest "defining at least one dimension and a dimension value associated with the at least one dimension for said multi-dimensional data structure; defining an attribute and an attribute value associated with the attribute for said multi-dimensional data structure, wherein the attribute is assigned to a single dimension; creating a plurality of combinations of dimension values, wherein a combination defines a data item, wherein the plurality of combinations comprise a first set of data items and a second set of data items, wherein said multi-dimensional data structure is defined by the dimensions associated with the first set of data items, and wherein the second set of data items comprises data items associated with the dimensions associated with the plurality of data sources; mapping data items in the first set of data items in said multi-dimensional data structure to corresponding data items in the second set of data items; determining a data gap wherein the mapping step results in a difference between the dimension characteristics of the first set of data items and the second set of data items; bridging the gap by at least one of the following: obtaining, from one of the plurality of data sources, a further data item for mapping to one of the data items in the first set, wherein the further data item is not originally obtainable in the second set of data items

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and is generated from one or more of the plurality of data sources; modifying the multi-dimensional data structure to be further defined by the second set of data items; or converting a source data structure in at least one of the plurality of data sources into a source data structure defined by at least one data item in the first set of data items; documenting how the gap was bridged; and creating a mapping file for historic data conversion, wherein the mapping file is configured to store relationships between data items in historical data sources for use in generating new data items from historical data sources”.

Based on the arguments and subject matter as described above and further review of the subject matter of each independent claim, examiner is persuaded that the most recently amended claims 1, 10, and 21 overcome the teaching of reference Shoup and Nwabueze and prior arts. Therefore, each of the independent claims includes the following allowable subject matter:

“defining at least one dimension and a dimension value associated with the at least one dimension for said multi-dimensional data structure;

defining an attribute and an attribute value associated with the attribute for said multi-dimensional data structure, wherein the attribute is assigned to a single dimension;

creating a plurality of combinations of dimension values,

wherein a combination defines a data item,

wherein the plurality of combinations comprise a first set of data items and
a second set of data items,

wherein said multi-dimensional data structure is defined by the dimensions
associated with the first set of data items, and

wherein the second set of data items comprises data items associated
with the dimensions associated with the plurality of data sources;

mapping data items in the first set of data items in said multi-dimensional data
structure to corresponding data items in the second set of data items;

determining a data gap wherein the mapping step results in a difference between
the dimension characteristics of the first set of data items and the second
set of data items;

bridging the gap by at least one of the following:

obtaining, from one of the plurality of data sources, a further data item for
mapping to one of the data items in the first set, wherein the further
data item is not originally obtainable in the second set of data items
and is generated from one or more of the plurality of data sources;

modifying the multi-dimensional data structure to be further defined by the
second set of data items; or

converting a source data structure in at least one of the plurality of data
sources into a source data structure defined by at least one data
item in the first set of data items;

documenting how the gap was bridged; and

creating a mapping file for historic data conversion, wherein the mapping file is configured to store relationships between data items in historical data sources for use in generating new data items from historical data sources”.

An updated search for prior art on EAST database and on domains (NPL-ACM, Google, NPL-IEEE) has been conducted. The prior arts searched and investigated in the database and domains do not fairly teach or suggest the teaching of newly amended claimed subject matter as combined and described in each of the independent claims 1, 10, and 21.

The dependent claims depending upon claims 1, 10, and 21 are also distinct from the prior art for the same reason.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance”.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN A. PHAM whose telephone number is (571) 270-3173. The examiner can normally be reached on Monday to Friday (7:30AM-5:00PM) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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02/02/2011

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